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| 10/530,996 | 09/26/2005 | Gerhard Jonschker | 4836-000015/NP | 2160 |
| 27572 7590 06/02/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303 | | | | |
| EXAMINER NGUYEN, TRI V | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,996

Applicant(s)

JONSCHKER ET AL.

Examiner

TRI V. NGUYEN

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5, 6, 8 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 8, 13-19, 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/18/09 has been entered.

Response to Amendment

2. Upon entry of the amendment filed on 03/18/09, Claims 1 and 8 are amended; Claims 11, 12, 20 are withdrawn; Claims 21-23 are added and Claims 3, 4, 7, 9 and 10 are cancelled. The currently pending claims are Claims 1, 2, 5, 6, 8, 11-23.

Based on applicants' remarks and amendments – inclusion of claims 4, 7 and specific surface modifying agents into claim 1-, the 103 rejections based solely on Soane et al., Zuechner et al. and Rohrbaugh et al. are withdrawn; however, new grounds of rejections are provided.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "The textile treatment agent according to claim 4" in line 1. There is insufficient antecedent basis for this limitation in the claim since claim 4 has been cancelled.

Claim 6 is dependent on claim 5 thus inherits the same deficiency.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 2, 5, 6, 8, 10, 13-19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soane et al. in view of Brueck et al. (WO 01/40394 - the US equivalent 2002/0193504 is referred to).

Soane et al. disclose a textile treatment agent that includes inorganic nanoparticles that are surface modified and various ingredients such as surfactants and fragrances (abstract, § 13, 81, 89-97, 124, 130 and 143). Furthermore, Soane et al. disclose the features of various textiles such as cotton, wool, silk and synthetic fibers (§ 93), a concentration of nanoparticles of 0.1 to 95% (§96), cationic nanoparticles (§ 97) and a diameter range of about 1 to 1000 nm (§ 81). It is noted that the inorganic surface modification is also met by the teaching of the silica or silane coated inorganic nanoparticles (§ 120-126, 133 and 134).

The Soane et al. reference disclose the claimed invention but does not explicitly disclose the inorganic nanoparticle being surface modified by the claimed inorganic compounds; however, it is noted that it is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506,509, 173 USPQ 356,359 (CCPA 1972).

Given that the Brueck et al. reference teaches the feature of surfaced modified inorganic particle in the range of 5-40 nm (§51) such as SiO₂ particle modified by ZrO₂ or TiO₂ (§ 58) in a textile treatment composition, it would have been obvious to one of ordinary skill in the art to use the surfaced modification agents and nanoparticle features in the composition of the Soane et al. reference.

Soane et al. and Brueck et al. disclose the claimed composition but do not explicitly disclose a composition comprising the agents, thickness and diameter ranges in the amounts as those recited by the Applicant.

Regarding the thickness of the layer, given that the Soane et al. and Brueck et al. references disclose nanoparticles being in the same range as applicants to coat the textile (Soane et al.: § 81 and Brueck et al: § 2), it would have been obvious to one of ordinary skill in the art to utilize any of the taught thickness, including those presently claimed, to obtain a suitable composition, e.g. it would have been obvious to optimize the components based on the desired effect - see the various modifications shown in the examples starting on § 99.

Regarding the inorganic surface modification agent of claims 1, 15 and 21-23, it is noted that the instant claims are directed to a treatment agent and not a method of making the treatment agent. Soane et al. teach the nanoparticles being contacted with a magnesium chloride and sodium chloride (§ 95 and 97) and Brueck et al. teach the modifying agent being ZrO₂ or TiO₂ (§ 58); thus the same resulting effect on the nanoparticle would be expected since similar modifying agents are used. Furthermore, it is noted that the subject matter would have been obvious to the skilled artisan because the patentability of a product by process claim does not depend on its method of production and where the examiner has found a similar product, the burden rests with the applicant to prove that that product is patentably distinct. See *In re Thorpe*, 227 USPQ 964 (CAFC 1985); *In re Marosi et al*, 218 USPQ 289; *In re Pilkington*, 162

USPQ 145. "The lack of physical description in a product-by-process claim makes the determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not the process that must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 173 USPQ 685,688 (CCPA 1972).

7. Claims 1, 2, 5, 6, 8, 16-19 and 21-23 are rejected under 35 U.S.C. 103(a) as obvious over Zuechner et al. (WO 01/83662 cited in the IDS - the English equivalent US 2004/0023824 is referred to hereon) in view of Brueck et al. (WO 01/40394 - the US equivalent 2002/0193504 is referred to)

Zuechner et al. disclose a finishing textile agent that includes inorganic nanoparticles such as silica that are surface modified by various chemicals and additional ingredients such as surfactant, thickeners and perfumes (abstract and § 11, 16-22, 32, 36, 67, 77, 88 and 126). Furthermore, Zuechner et al. disclose the features of various textiles such as cotton (§ 12), a concentration/content of nanoscale particles of 0.01 to 35 % by wt (§ 14-15) and a particle size of 5 to 500 nm (§ 10-11).

The Zuechner et al. reference disclose the claimed invention but does not explicitly disclose the inorganic nanoparticle being surface modified by the claimed inorganic compounds; however, it is noted that it is well settled that it is *prima facie* obvious to combine two

ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506,509, 173 USPQ 356,359 (CCPA 1972).

Given that the Brueck et al. reference teaches the feature of surfaced modified inorganic particle in the range of 5-40 nm (§51) such as SiO₂ particle modified by ZrO₂ or TiO₂ (§ 58) in a textile treatment composition, it would have been obvious to one of ordinary skill in the art to use the surfaced modification agents and nanoparticle features in the composition of the Zuechner et al. reference.

Zuechner et al. and Brueck et al. disclose the claimed composition but do not explicitly disclose a composition comprising the agents, thickness and diameter ranges in the amounts as those recited by the Applicant.

Given that the Zuechner et al. and Brueck et al. references disclose nanoparticles being in the same range as applicants to coat the textile, it would have been obvious to one of ordinary skill in the art to utilize any of the taught thickness sizes, including those presently claimed, to obtain a suitable composition, e.g. it would have been obvious to optimize the components based on the desired effect - see the various modifications shown in the examples starting on § 99.

Regarding the inorganic surface modification agent of claims 1, 15 and 21-23, it is noted that the instant claims are directed to a treatment agent and not a method of making the treatment agent. Brueck et al. teach the modifying agent being ZrO₂ or TiO₂ (§ 58); thus the same resulting effect on the nanoparticle would be expected since similar of modifying agent are used. Furthermore, it is noted that the subject matter would have been obvious to the skilled artisan because the patentability of a product by process claim does not depend on its method of production and where the examiner has found a similar product, the burden rests with the applicant to prove that that product is patentably distinct. See *In re Thorpe*, 227 USPQ 964

(CAFC 1985); In re Marosi et al, 218 USPQ 289; In re Pilkington, 162 USPQ 145. "The lack of physical description in a product-by-process claim makes the determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not the process that must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 173 USPQ 685,688 (CCPA 1972).

8. Claims 1, 2, 5, 6, 8, 13-18 and 21-23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rohrbaugh et al. (US 2002/0151634) in view of Brueck et al. (WO 01/40394 - the US equivalent 2002/0193504 is referred to).

Rohrbaugh et al. disclose a coating composition that includes inorganic nanoparticles such as oxides and silicates that are surface modified by various chemicals and additional ingredients such as surfactant, softeners and perfumes (abstract and § 44-46, 58, 59, 123, 124 and 197). Furthermore, Rohrbaugh et al. disclose the features of various textiles such as cotton and synthetic fibers (§ 26), a concentration/content of nanoscale particles of 1 to 100 % by wt and 0.01 to 5% of the coating composition (§ 79), a particle size of 2 to 750 nm (§ 44) and a cationic particle charged via a Al^{+3} salt (§ 69).

The Rohrbaugh et al. reference disclose the claimed invention but does not explicitly disclose the inorganic nanoparticle being surface modified by the claimed inorganic compounds;

however, it is noted that it is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506,509, 173 USPQ 356,359 (CCPA 1972).

Given that the Brueck et al. reference teaches the feature of surfaced modified inorganic particle in the range of 5-40 nm (§51) such as SiO₂ particle modified by ZrO₂ or TiO₂ (§ 58) in a textile treatment composition, it would have been obvious to one of ordinary skill in the art to use the surfaced modification agents and nanoparticle features in the composition of the Rohrbaugh et al. reference.

Rohrbaugh et al. and Brueck et al. disclose the claimed composition but do not explicitly disclose a composition comprising the agents, thickness and diameter ranges in the amounts as those recited by the Applicant.

Regarding the thickness of the layer, given that the Rohrbaugh et al. and Brueck et al. references disclose nanoparticles being in the same range as applicants to coat the textile, it would have been obvious to one of ordinary skill in the art to utilize any of the taught thickness sizes, including those presently claimed, to obtain a suitable composition, e.g. it would have been obvious to optimize the components based on the desired effect - see the various modifications shown in the examples starting on § 99.

Regarding the inorganic surface modification agent of claims 1, 15 and 21-23, it is noted that the instant claims are directed to a treatment agent and not a method of making the treatment agent. Brueck et al. teach the modifying agent being ZrO₂ or TiO₂ (§ 58); thus the same resulting effect on the nanoparticle would be expected since similar of modifying agent are used. Furthermore, it is noted that the subject matter would have been obvious to the skilled artisan because the patentability of a product by process claim does not depend on its method of production and where the examiner has found a similar product, the burden rests with

the applicant to prove that that product is patentably distinct. See *In re Thorpe*, 227 USPQ 964 (CAFC 1985); *In re Marosi et al*, 218 USPQ 289; *In re Pilkington*, 162 USPQ 145. "The lack of physical description in a product-by-process claim makes the determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not the process that must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 173 USPQ 685,688 (CCPA 1972).

Response to Arguments

9. Applicant's arguments with respect to claims 1, 2, 5, 6, 8, 13-19 and 21-23 have been considered but are moot in view of the new ground(s) of rejection. In particular, the newly found reference of Brueck et al. is relied upon to teach the inorganic surface modified nanoparticles.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Arpac et al. (US 6291070) teach surface modified inorganic nanoparticles used in coating textile.

- b. Fries et al. (US 6639039) teach a composition that includes SiO₂ surface modified nanoparticles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./
Examiner, Art Unit 1796
June 2, 2009

/Lorna M Douyon/
Primary Examiner, Art Unit 1796